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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,774	10/29/2003	Yuji Hirano	244739US0	6704

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EXAMINER
VENKAT, JYOTHSNA A

ART UNIT	PAPER NUMBER
1615	

NOTIFICATION DATE	DELIVERY MODE
05/27/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/694,774	HIRANO, YUJI	
	Examiner	Art Unit	
	JYOTHSNA A. VENKAT	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 March 0408*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5 and 7-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 5 and 7-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/24/08 has been entered.

Claims 16- 20 have been added as per applicants' amendment dated 3/2/4/08. Claims 1, 5 and 7-20 are pending in the application. Claims 3-4 and 6 are withdrawn from consideration drawn to non-elected species.

Claim 5 is examined to the extent that it reads on the elected species, which is "vinylpyrrolidone/dimethylamino methacrylate copolymer".

Claim Rejections - 35 USC § 103

Claims 1, 5, 7-11, and 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U.S. Patents 6,685,953 ('953) and PGPUB 2003/0008855 A1 ('855).

The instant application is claiming hair styling composition comprising diamide and a film-forming polymer (cationic film former). Patent '953 teaches external preparations using the same claimed diamide. See the abstract, see col.s 2-6 for the diamide, see col.7, lines 41-56 and see col.8, lines 8-30, where the patent teaches using diamide in hair care art. This includes using the diamide in hair rinses, hair treatment and in hair styling. Patent does not teach film- forming polymer. However PGPUB '855 teaches styling compositions using film-former. Film-formers are used in hair styling art. See paragraphs 7-9 and paragraphs 28-29. See paragraph 34 for the

cationic polymers and see the elected species under cationic polymer. PGPUB at paragraph 39 teaches that the compositions can have additives and this includes silicone derivatives (claim 15) and proteins at paragraph 45.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare hair composition of '953 and add film-forming agent of '855 and proteins, silicone derivatives in hair styling compositions. One of ordinary skill in the art would be motivated to add film-forming agent taught by '855 into the compositions of '953 with the reasonable expectation of success that the hair can be styled and it is conventional to add film formers for styling and one of ordinary skill in the art would be motivated to add the silicones since silicones derivatives are added to condition the hair This is a prima facie case of obviousness.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U.S. Patents 6,685,953 ('953) and PGPUB 2003/0008855 ('855) as applied to claims 1-2, 5, 7-11 and 15 above, and further in view of translated DE 199 02 530 ('530).

Patents '953 and 'PGPUB '855do not teach ceramides in the hair compositions. However DE document teaches ceramides. See page 2 for acylated sphingosine. See also examples. Ceramides are lipids and they exhibit conditioning property.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the hair composition of '953 and cationic film former, silicone derivatives, protein taught by PGPUB '855 and add ceramides taught by DE '530 in analogous hair compositions. One of ordinary skill in the art would be motivated to add the ingredients taught by '855 and DE and prepare another analogous composition with the reasonable

expectation of success that new hair compositions has the advantage of providing conditioning effect and silicones are known conditioning agents and adding Ceramide also provide conditioning property. This is a prima facie case of obviousness.

Applicants' did not address the two 103 rejections separately, instead they argue together.

Response to Arguments

Applicant's arguments filed 3/24/08 have been fully considered but they are not persuasive.

Applicant's argue:

> "Hoshino et al. merely describes dermatological preparations comprising diamide compounds. The object of the reference is described as maintaining and reinforcing the water retention capacity and barrier functions of the horny layer, preventing or remedying skin troubles, protecting the hair with a penetrated component improving the touch and feel of the hair, and preventing or remedying chapping of the scalp (column l, lines 50-60). There is no disclosure or suggestion that a diamide compound in combination with a film-forming polymer would improve any one of hair stiffness, split ends and broken hairs and voluminosity of hair. Simon has been cited for a disclosure of film-forming polymers (e.g. hair styling resins paragraphs [0028-29]). There is no suggestion that a combination of film-forming polymer and diamide would provide the observed improved hair performance. DE '530 has merely been cited for a disclosure of a ceramide. There is no suggestion that a combination of film-forming polymer and diamide would provide the observed improved hair performance. Thus, the combined disclosures

of the references fail to suggest the observed improved hair performance resulting from the combination of film-forming polymer and diamide".

In response to the above argument, patent '953 teaches that the claimed diamides are used in cosmetics and the cosmetics can be formulated into various forms and these include hair styling agent. In order to be used in hair styling agent, film formers are conventionally used. Thus patent suggests to one skilled in the hair care art that the diamides can be use din hair styling compositions since diamides can be used as humectant and one skilled in the hair care art would add film formers taught by PGPUB into the compositions of patent '953, which has the diamide and use these compositions for styling hair.

In response to applicant's arguments that the there is no disclosure or suggestion that a diamide compound in combination with a film-forming polymer would improve any one of hair stiffness, split ends and broken hairs and voluminosity of hair, instant claims are drawn to compositions and not to method of using the compositions for improving hair stiffness, split ends and broken hairs and providing voluminosity to hair.

Applicants at pages 2-6 of the response point out to tables 1-3 of the specification and argue that claimed invention is unobvious over the references cited in the103 rejection.

Applicants point out to table 1 and argue that examples 1-3 which contain the same film forming polymer and diamide compound F demonstrated greater stiffness and a significantly lower percentage occurrence of split ends and broken hairs ranging from only 31-51%, where as Comparative Example 1 of Table 1 in the absence of diamide compound (F), in the presence of principally only a film-forming polymer demonstrated a stiffness of only 2.8 and 100% occurrence of split ends and broken hairs.

In response, **table 1** is specific to **diamide compound F** and the **film forming polymer** is **Acrylamide/alkyl acrylate/methoxypolyethylene glycol methacrylate copolymer** and the weight percent of the **diamide is 2 and 3%** and the weight percent of the **film forming polymer is 6%.** Table 1 did not show any results when the diamide compound is 0.01 % and 10 % or 20 % or 30%. Note that the diamide compound weight percent can be 0.01% to 20 %. The weight percent of film forming polymer claimed is 0.05 to 30% One can not extrapolate the data using 2% and 3% of diamide F to lowest and highest weight percent used for diamide F and one can not extrapolate the weight percent of the film forming polymer being 6% to lowest , highest weight percent of the film forming polymer. Additionally diamide F is structurally different from the diamide A, whcih has hydroxyl at the end and also ether linkage, and diamide F has methoxy at the end and no ether linkage. Thus both the compounds are structurally dissimilar. Diamide D is related to diamide A, but the carbon chain in diamide D is 19 carbon chain and the carbon chain in diamide A is 27 carbon atoms. Thus diamide A and diamide D do not share close structural similarity. Diamide A is more hydrophobic than diamide A. Diamide F is related to diamide N, but the carbon chain in diamide N is 16 carbon chain and the carbon chain in diamide F is 26 carbon atoms. Diamide F is branched and diamide N is straight. Thus diamide F and diamide N do not share close structural similarity. Diamide F is more hydrophobic than diamide N.

Applicant's point out to Table 2 and argue that table 2 illustrates compositions having the same components, varying the concentration of diamide as compared with a composition in the absence of diamide and argue that the date showed a significantly reduced occurrence of split ends and broken hairs from the compositions containing both the film forming polymer and

diamide as compared with the film forming polymer alone and such results are nowhere disclosed or suggested in the cited art of record.

In response, **table 2** is specific to diamide **compound F** and the film forming polymer is **Vinylpyrrolidone/N, N-dimethylaminoethyl methacrylate copolymer diethyl sulfate** and the weight percent of the diamide is 2% and 4% and the weight percent of the film forming polymer is 2.5%. Table 2 did not show any results when the diamide compound is 0.01 % and 10 % or 20 % or 30%. Note that the diamide compound weight percent can be 0.01% to 20 %. The weight percent of film forming polymer claimed is 0.05 to 30%. One can not extrapolate the data using 2% and 4% of diamide F to lowest and highest weight percent used for diamide F and one can not extrapolate the weight percent of the film forming polymer being 2.5% to lowest , highest weight percent of the film forming polymer. Additionally diamide F is structurally different from the diamide A, whcih has hydroxyl at the end and also ether linkage, and diamide F has methoxy at the end and no ether linkage. Thus both the compounds are structurally dissimilar. Diamide D is related to diamide A, but the carbon chain in diamide D is 19 carbon chain and the carbon chain in diamide A is 27 carbon atoms. Thus diamide A and diamide D do not share close structural similarity. Diamide A is more hydrophobic than diamide A. Diamide F is related to diamide N, but the carbon chain in diamide N is 16 carbon chain and the carbon chain in diamide F is 26 carbon atoms. Diamide F is branched and diamide N is straight. Thus diamide F and diamide N do not share close structural similarity. Diamide F is more hydrophobic than diamide N.

Applicant's point out to data in Table 3, which shows Example 7 and Comparative Example 3 and are identical composition but for the presence of a diamide compound in

Example 7 and argue that the composition that has diamide compound, exhibited a voluminosity of only 46.3%, as compared with 61% in the absence of the diamide compound.

In response, **table 3** is specific to **diamide compound F** and the **film forming polymer** is **Acrylamide/dimethyldiallylammonium chloride copolymer** and the weight percent of the **diamide is 2%** and the weight percent of the **film forming polymer is 1.5%.** Table 3 did not show any results when the diamide compound is 0.01 % and 10 % or 20 % or 30%. Note that the diamide compound weight percent can be 0.01% to 20 %. The weight percent of film forming polymer claimed is 0.05 to 30% One can not extrapolate the data using 2% of diamide F to lowest and highest weight percent used for 1.5 % to lowest , highest weight percent of the film forming polymer. Additionally diamide F is structurally different from the diamide A, whcih has hydroxyl at the end and also ether linkage, and diamide F has methoxy at the end and no ether linkage. Thus both the compounds are structurally dissimilar. Diamide D is related to diamide A, but the carbon chain in diamide D is 19 carbon chain and the carbon chain in diamide A is 27 carbon atoms. Thus diamide A and diamide D do not share close structural similarity. Diamide A is more hydrophobic than diamide A. Diamide F is related to diamide N, but the carbon chain in diamide N is 16 carbon chain and the carbon chain in diamide F is 26 carbon atoms. Diamide F is branched and diamide N is straight. Thus diamide F and diamide N do not share close structural similarity. Diamide F is more hydrophobic than diamide N.

The showing in the specification is not commensurate with the scope of claims. Therefore 103 rejection is deemed proper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTHSNA A. VENKAT whose telephone number is 571-272-0607. The examiner can normally be reached on Monday-Friday, 10:30-7:30:1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL WOODWARD can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JYOTHSNA A VENKAT /
Primary Examiner, Art Unit 1615